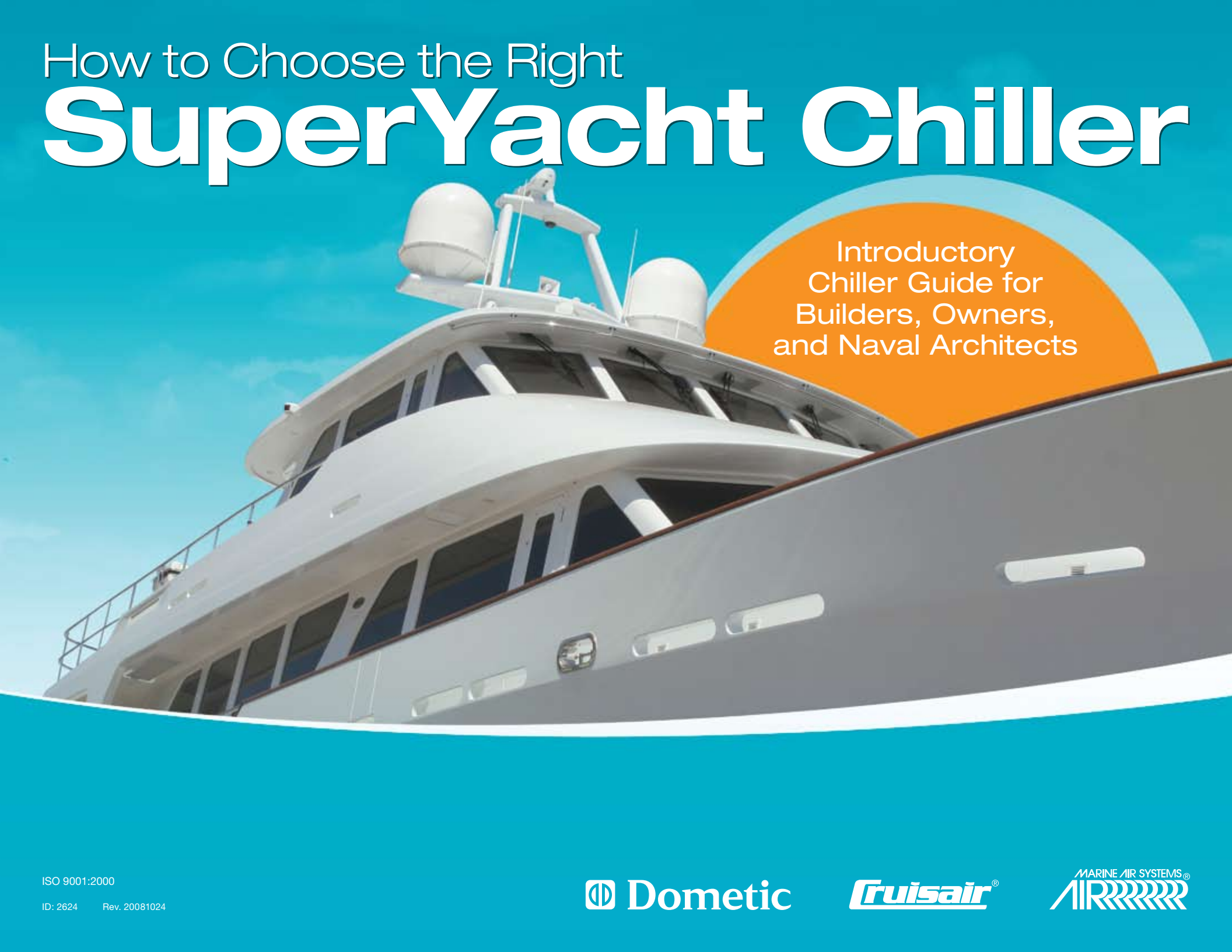


How to Choose the Right **SuperYacht Chiller**



Introductory
Chiller Guide for
Builders, Owners,
and Naval Architects



The Critical Role of Yacht Air Conditioning

In any yacht design, especially in the design of a super yacht, air conditioning plays a critical role. No matter how elegant the surroundings, they won't feel luxurious if the temperature of the living area is less than comfortable. It is wise, therefore, to engineer the air conditioning system for the unique characteristics of each yacht, and address climate control with as much attention and expertise as you give to the design of the yacht itself.

Occasionally, naval architects, builders, and owners do not have the experience and specialized knowledge it takes to assess real-world air conditioning requirements. Look to Dometic for the resources and expertise you need. Our senior engineers can design your yacht's air conditioning system or review your design and specifications to make sure everything is correct.

Dometic:
Global Leader
In Marine Air
Conditioning for
50 Years.

The Three Biggest Challenges When Choosing the Right Company

Do you know the three biggest challenges to consider when choosing the right air conditioning company for your yacht?

- 1 Complete engineering support:** Proper system sizing, specifications, installation supervision, and system training.
- 2 Broad selection:** A wide variety of chilled water systems, air handlers, and control systems to suit the needs of different yachts and different usage profiles.
- 3 Equipment reliability:** Quality, dependable equipment backed up by a certified worldwide service network.

Since 1959, Dometic Cruisair and Marine Air have been providing the most proven and innovative marine air conditioning systems in the world.

Dometic's expert and experienced engineering team will review your drawings and specifications to ensure all measurements and load calculations are correct. Or, you can have them layout your system, size all the appropriate capacities, and provide you with the world's broadest range of equipment and accessories. We also support installation and startup supervision, reliable documentation, and system training.

Dometic engineers and builds the most dependable air conditioning systems in the

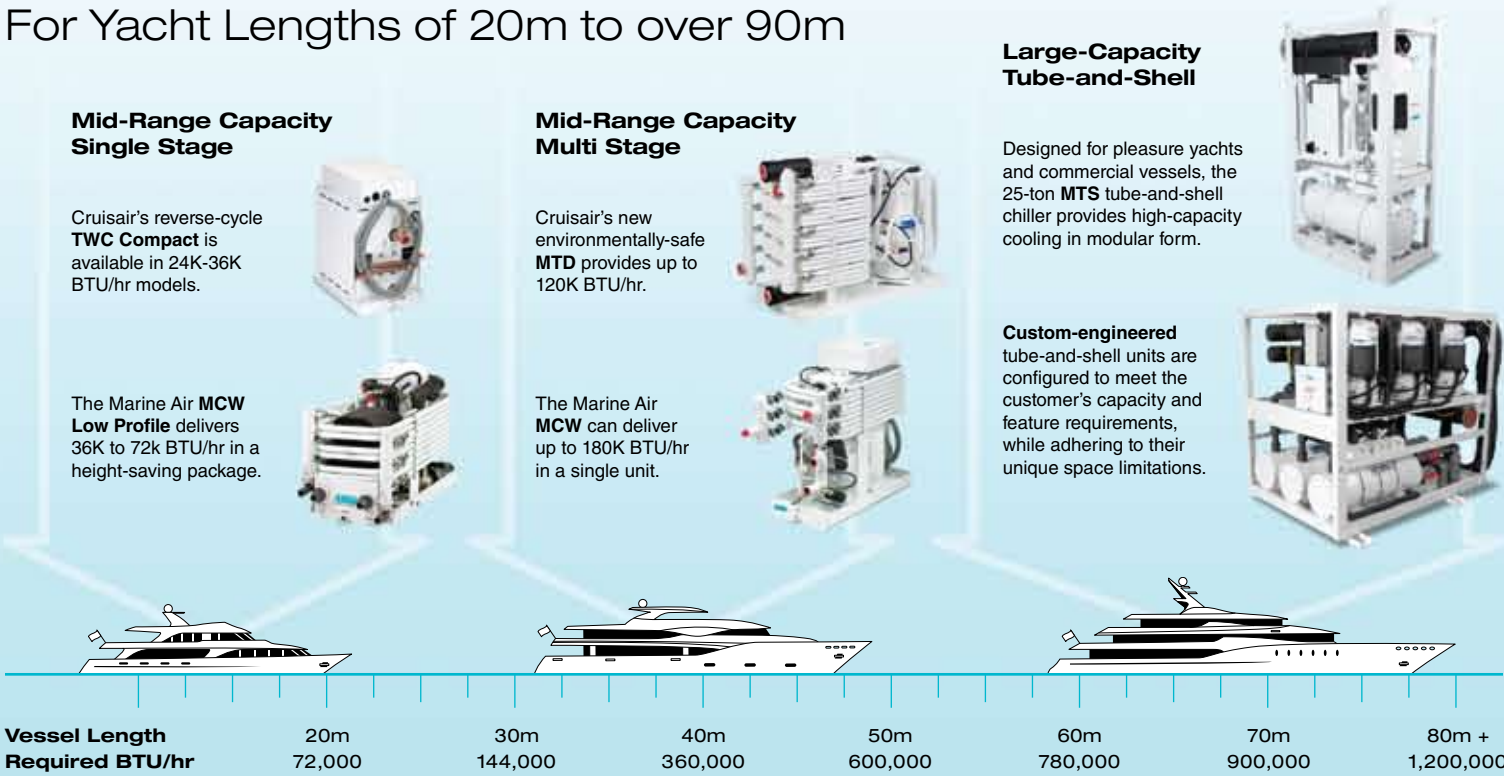
world, and keeps them running with a global network of trained sales and service personnel, available 24/7, 365 days a year.



Capacity From 16,000 to 2.52 Million BTUs For Yacht Lengths of 20m to over 90m

Dometic's chillers range in capacity from 16,000 to 2.52 million BTUs. To meet many unique needs, systems are available in a variety of styles, such as compact units, modular staged units, and mammoth tube-and-shell systems for very large yachts. Custom chillers can also be designed to meet special needs.

- Key Benefits**
- Largest equipment selection.
 - Global service network.
 - Installation supervision.
 - Proper system sizing.
 - Equipment reliability.



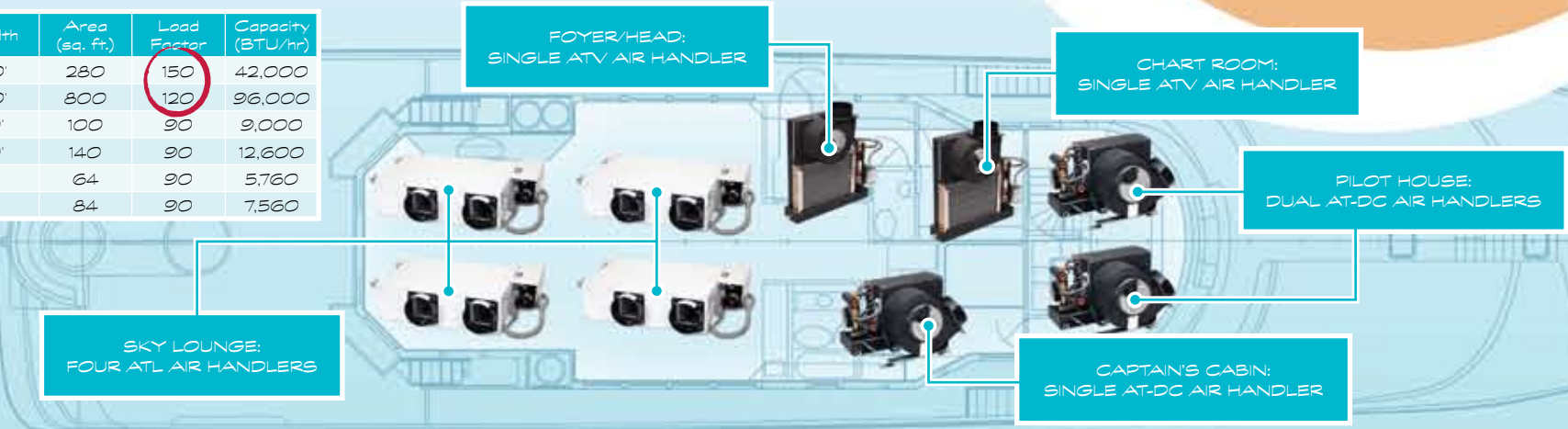
Custom Engineering Solutions Dometic Eliminates Your Sizing Guess Work

Dometic's engineering team will work with you to develop a chiller system that meets your BTU capacity and fits the spatial limitations of your yacht's

architecture. Our engineers are with you from start to finish with system design, installation supervision, system start-up, documentation, and training.

Load Calculation Table


Cabin	Length	Width	Area (sq. ft.)	Load Factor	Capacity (BTU/hr)
Pilot House	14'	20'	280	150	42,000
Sky Lounge	40'	20'	800	120	96,000
Chart Room	10'	10'	100	90	9,000
Capt. Cabin	14'	10'	140	90	12,600
Capt. Head	8'	8'	64	90	5,760
Foyer/Head	12'	7'	84	90	7,560



Custom Load Calculation Table Note

Based on the deck plan below, our engineers compensated for the unique needs of each accommodation space. In the Load Calculation Table, the pilot house and the sky lounge have different load factors although they are on the same deck. This adjustment is to offset the heat generated by electronics and the surrounding pilot house windows.


Single Stage Chillers



◀ **TWC36C**

The TWC chiller cools and heats, and is currently available in 24K, 30K, and 36K BTU/hr sizes.


Capacity	Voltage/Cycle/Phase
36,000 BTU/hr	All standard voltages.



◀ **MCWLP**

The modular MCW Low Profile is available in 36K to 72K BTU/hr models in a height-saving design.

Capacity	Voltage/Cycle/Phase
72,000 BTU/hr	All standard voltages.



◀ **MCW**

The modular MCW is available in capacities from 24K BTU/hr to 180K BTU/hr.

Capacity	Voltage/Cycle/Phase
180,000 BTU/hr	All standard voltages.


Custom Multi Stage Chillers



◀ **TWC3X2.5HC-CS-TWLC**

Three 2.5-ton TWC units on a standard base.

Capacity	Voltage/Cycle/Phase
90,000 BTU/hr	230/60/1



FMTC55VDC-407 ▶

Two 5-ton MTC units on a vertical frame.


Capacity	Voltage/Cycle/Phase
120,000 BTU/hr	230/50/3



◀ **MCW192**

Four 4-ton MCW units mounted on a standard base.

Capacity	Voltage/Cycle/Phase
192,000 BTU/hr	230/60/3



FMTC4X5.5HECK ▶

Four 5.5-ton units on a standard base with bolt-on frame.

Capacity	Voltage/Cycle/Phase
264,000 BTU/hr	230/60/3



◀ **FMTC5X5HD-407**

Five 5-ton MTC units painted Japanese Coast Guard green.

Capacity	Voltage/Cycle/Phase
300,000 BTU/hr	230/60/3

FMTCLP6X5VDC ▶

Six 5-ton MTC low profile modules on a custom frame.

Capacity	Voltage/Cycle/Phase
360,000 BTU/hr	230/60/3

◀ **MCW480(009)SCL**

Four 10-ton MCW cool-only units on a custom vertical frame.

Capacity	Voltage/Cycle/Phase
480,000 BTU/hr	208/60/3

MCW540(002)SEHN ▶

Three 15-ton MCW cool-only units on a custom frame.

Capacity	Voltage/Cycle/Phase
540,000 BTU/hr	460/60/3

All Chillers Available In 60Hz or 50Hz



Tube-and-Shell Chillers



◀ **MTS480**

Two 20-ton MTS units on standard base and frame.

Capacity	Voltage/Cycle/Phase
480,000 BTU/hr	380/50/3

STS540(001)SEH ▼

Three 15-ton units with tube-and-shell condensers on a custom base and frame.

Capacity	Voltage/Cycle/Phase
540,000 BTU/hr	230/60/3



Dometic's **Pump Packages** conveniently reduce the installation time of chilled-water systems by combining several necessary components in one package.

- Includes pump, expansion tank, dual-scale (psi/kPa) pressure gauge, and fill assembly.
- Bladder-style expansion tank relieves water pressure to prevent leaks.
- Dual-scale pressure gauge is convenient for US and international customers.



AT-MU air handlers are designed for use in fresh air make-up systems where outside air is drawn in by the air handler, cooled, dehumidified, and reheated to room temperature, then ducted to various areas.

- Compact design with vibration isolation mounts.
- Electric heat with 2-stage electric heat overload.
- Integrated 3-way bypass valve.



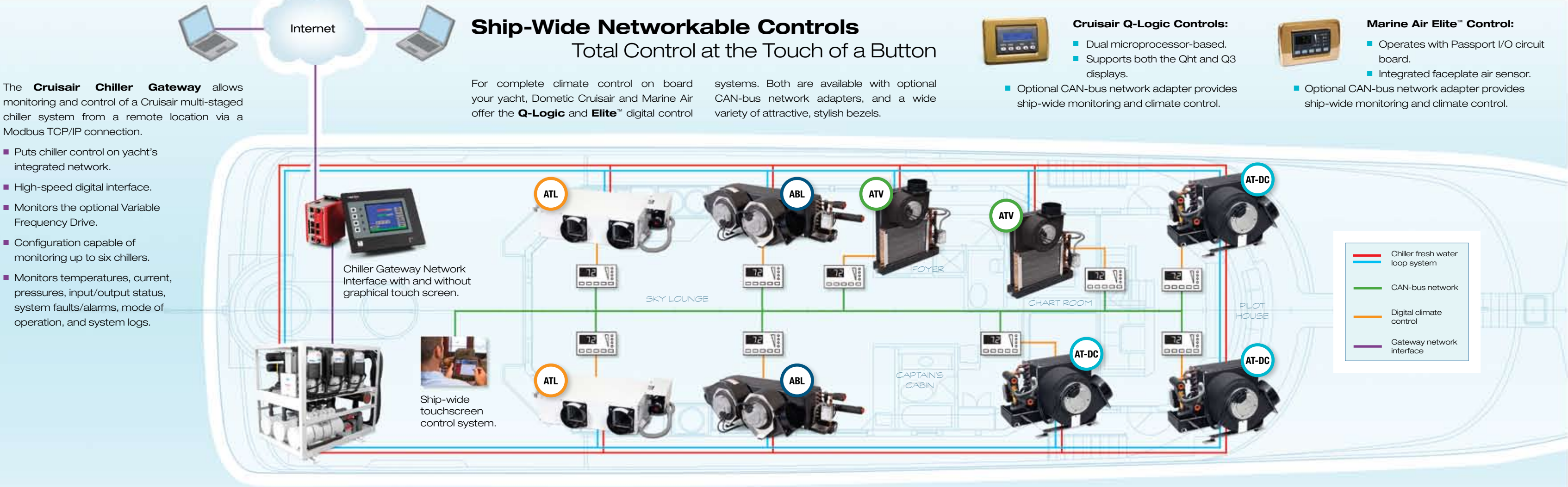
Our **Variable Frequency Drive** eliminates the large starting in-rush of current of the compressor by ramping up voltage and frequency in a controlled time period.

- 208/230V 3-phase output with 1-phase or 3-phase input.
- Full 60Hz capacity even at 50Hz input (230V only).
- 400/480V 3-phase models available.



Accessories for improved efficiency of chilled water AC systems.

- The **Spirovent™** bleeds the entire system of excess air.
- The **Back-flow Preventer** protects fresh water from contamination.
- The Pressure Regulator protects the loop water from high-pressure damage.



Certified Worldwide Sales and Service Network

Largest Global Service Network

Dometic has the largest global network of trained sales and service teams to support you.

No matter where you build or travel, Dometic has the certified personnel to support you.

DOMETIC CORPORATION, ENVIRONMENTAL DIVISION

2000 N. Andrews Ave. Ext. I Pompano Beach, FL 33069 USA | 954-973-2477 | Fax 954-979-4414
P.O. Box 15299 | Richmond, VA 23227 USA | 804-746-1313 | Fax 804-746-7248
www.dometic.com

United States & Canada Service Only:

8:00 AM to 5:00 PM Eastern Time | Marine Air AC Products: 954-973-2477
Cruisair AC Products: 804-746-1313

24/7 AC SERVICE HOTLINE: 5:00PM to 8:00 AM: 888-440-4494

International Sales & Service:

Europe & the Middle East: Call +44(0)870-330-6101
For all other areas visit our website to find your nearest distributor.

